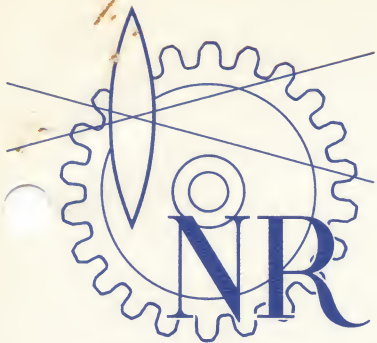
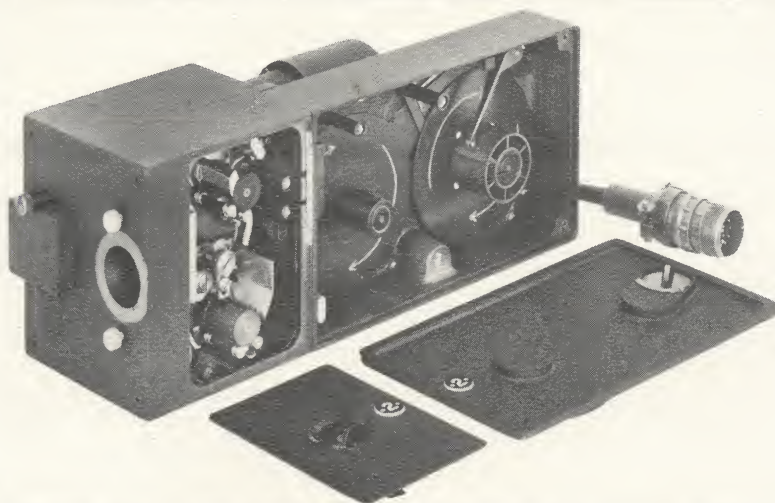




The only pin-registered camera of its type available for programmed time exposures, variable pulse operation, and time-lapsed data acquisition.



"Pulsemaster" PIN- REGISTERED CAMERA

The Northridge Research "Pulsemaster" is the only **pin-registered** 35mm camera with intermittent movement available to the photographic and research engineer, that can be cine-pulsed, and is capable of speeds from "time" to 80 frames-per-second. It is ideal for all applications requiring programmed time exposures, variable pulse operation, and time-lapsed data acquisition. The "Pulsemaster" has been proven over a wide range of data recording applications under environmental extremes of temperature, shock and vibration. Meets MIL-E-5272C.

The "Pulsemaster" is capable of recording auxiliary data from an attached data chamber through a lens relay system. Standard 35mm perforated film is used, with standard size single-frame aperture. The camera is adapted to time-lapsed pulse operation, electronic-timed time exposures with variable time between exposures, and variable exposure time for pulse operation. Cine and pulsed exposures are dependent upon frame gears installed and shutter opening in degrees.

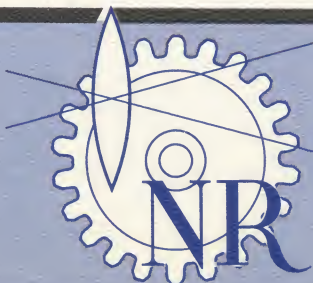
Frame rate range is from pulse to 20 fps (continuous operation) with 25 fps gears. Cine speeds are 5, 10, 20, 40 and 80 fps, with time exposures from 1/10 second

to 1/1000 second with 10° shutter opening in the pulse mode. Standard film capacity is 200 ft. in daylight loading magazines, with 400 ft. and larger magazines available.

Four fiducial markers are provided on the aperture plate, 90° to optical centerline of the lens. Other positioning, as well as lighted markers are available for special applications. Another feature of the "Pulsemaster" is the use of identical side and bottom mounting pads. Once camera is boresighted, remounting from side to base is possible without disturbing boresight. Specially designed, thermostatically controlled heaters assure operation at temperatures below 65°F.

ACCESSORIES

- Automatic exposure control attachment.
- Right angle fixed and 360° boresight tools.
- Special data presentation attachments for recording data either adjacent to recorded event or between film perforations. Typical data may be time, event lights, counters, digital data, etc.
- Fixed or variable shutters.
- Special mounting pads.
- Fiber-optic timing light and event correlation markers.



Northridge Research, Inc.

18222 PARTHENIA STREET, NORTHRIDGE, CALIFORNIA 91324
PHONE: (213) 345-1450

PRODUCT SUMMARY



35MM DATA RECORDER — ELECTRONIC PROGRAMMABLE FOR TIME, TIME-LAPSED PICTURES — PULSEABLE TO 20 FPS AND ABOVE.

For aerial reconnaissance and mapping, on-board missile data acquisition, tracking, Oscillograph recording, ballistic trajectory tracking, miss-distance evaluation, missile tracking, weather studies, radar boresighting, surveillance photography. Several cameras may be pulsed together and will be accurately synchronized.

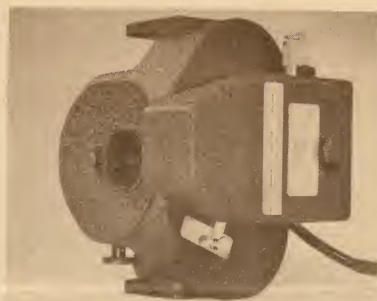
The camera is designed for prolonged periods of operation in rugged environments. The camera includes many exclusive features available on no other equipment of this nature.



2,000 FRAME PER SECOND DATA RECORDING CAMERA

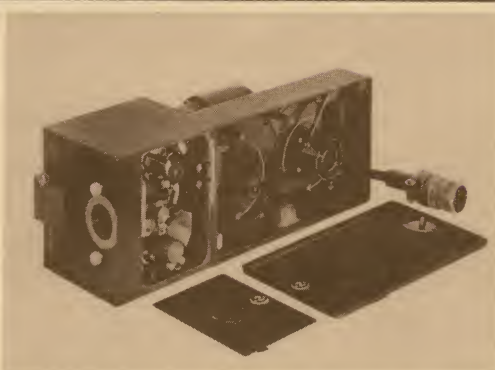
Model NR-16/2K "Speedtracker" Camera is a light weight high performance, 2,000 frame per second, 16mm, Rotary Prism Camera designed specifically for operation in high acceleration environments.

The "Speedtracker" was designed for use where multiple cameras could not be used because of power requirements and space restrictions. Start-stop action is programmable. Advance sprocket design permits stop-start action without breaking film.



"PULSEMASTER" PIN-REGISTERED, CINE-PULSED, 35MM CAMERA FOR TIME-TIME LAPSED — ELECTRONIC PROGRAMMABLE PHOTOGRAPHY. 5-80 FPS CINE. PULSEABLE TO 20 FPS AND ABOVE.

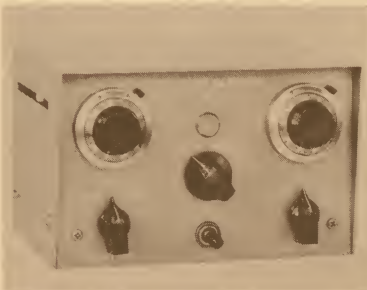
Is a versatile and economical data recorder for acquisition of data where accurate recording is of prime importance. The basic unit provides features found in no other camera. Many accessories are available and may be conveniently adapted in the field.



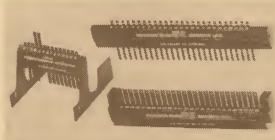
CAMERAS AND COMPLETE ACCESSORY EQUIPMENT FOR:

AERIAL RECONNAISSANCE AND MAPPING • RADAR ANTENNA BORESIGHTING AND TRACKING ERROR • RADARSCOPE RECORDING • ROCKET ENGINE TEST STAND DATA RECORDING • MISSILE TRACKING • AIRBORNE INSTRUMENT PANEL RECORDING • AIRCRAFT WINGTIP FLEXURE TESTS • WEATHER STUDIES • HIGH ALTITUDE SOLAR STUDIES (100,000 FT.) SPACE POSITIONING • TRAJECTORY

RANGE TRACKING • SOLAR AND LUNAR TELESCOPIC DATA RECORDING • LABORATORY TEST PHOTOGRAPHY • BOTANICAL RESEARCH • TIME AND MOTION STUDIES • AIRBORNE FIRE CONTROL SYSTEM SURVEILLANCE • TV RECORDING • OSCILLOSCOPE PHOTOGRAPHY • OCEANOGRAPHIC PHOTOGRAPHY • TRAFFIC FLOW ANALYSIS • TARGET MISS-DISTANCE EVALUATION



ELECTRONIC PROGRAMMERS FOR CINE-PULSE, TIME, TIME-LAPSED EXPOSURE CAMERAS "PULSEMASTER" and "CINETRACKER" cameras may be programmed for time exposures. Length of exposure may be changed when camera is being pulsed. Pulse rate changes automatically. Lapsed time may also be varied between pulses. Many other modes programmable without modification to camera.



OSCILLOGRAPH TRACE-BLOCKERS REMOVE UNNEEDED TRACES FROM RECORDING PAPER.

When installed on Galvanometer Block assembly of an oscillograph recorder **CALIBRATION** can be made easier — **SERVICE LIFE** is prolonged — **TROUBLE SHOOTING** is speeded up — **DATA REDUCTION** time is reduced many times — **COST OF MAINTENANCE** is reduced.

● Write or phone for more detailed information or complete specifications.

Northridge Research Inc.

Serving Photographic Instrumentation Engineers for over a decade.

18222 PARTHENIA STREET, NORTHRIDGE, CALIFORNIA 91324

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NR

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PHONE 345-1450/AREA CODE 213

July 16, 1965

Mr. T. Nelson
Systems Consultant
Box 32
Schooleys Mountain,
New Jersey

Dear Mr. Nelson:

Thank you for your inquiry through the Industrial Photography magazine concerning our pin-registered camera, the Pulsemaster. We are pleased to enclose a data sheet on this camera as well as a summary sheet of our other products.

If we can be of further assistance or should you wish additional information, please do not hesitate to contact us.

Very truly yours,

NORTHRIDGE RESEARCH INC.



Dennis Robinson

DR:mm
Enc.